

AMENDMENTS TO THE CLAIMS

1 1. (Currently Amended) A download system including (a) a receiving apparatus for
2 receiving and executing a program and (b) a transmitting apparatus for transmitting the program
3 to the receiving apparatus,

4 the receiving apparatus comprising:

5 information generating means for generating receiving apparatus information that
6 indicates a use state of resources held by the receiving apparatus that are necessary for program
7 executions, the use state indicating a current status of each resource being used and each resource
8 not being used;

9 request transmitting means for transmitting to the transmitting apparatus a
10 download request which contains (a) an identification of a download-target program and (b) the
11 generated receiving apparatus information; and

12 program receiving means for receiving a program that is sent from the
13 transmitting apparatus in response to the download request, and

14 the transmitting apparatus comprising:

15 program holding means for holding one or more programs and identifications
16 thereof;

17 resource information holding means for holding one or more pieces of resource
18 information which correspond to the one or more programs on a one-to-one basis and each
19 indicate resources necessary for an execution of a corresponding program;

20 request receiving means for receiving the download request from the receiving
21 apparatus;

judging means for judging, from (a) a piece of resource information corresponding to one of the one or more programs with the identification contained in the download request and (b) the receiving apparatus information contained in the download request, whether the receiving apparatus can execute the program with the identification by checking an amount of unused resource capability currently available; and

program transmitting means for ~~not~~ transmitting to the receiving apparatus the program with the identification when the judging means judges that the receiving apparatus can ~~not~~ execute the program and for transmitting to the receiving apparatus a notification that the download is not available when the judging means judges that the receiving apparatus can not execute the program.

2. (Currently Amended) A download system including (a) a receiving apparatus for receiving and executing a program and (b) a transmitting apparatus for transmitting the program to the receiving apparatus,

the receiving apparatus comprising:

information generating means for generating receiving apparatus information that indicates a use state of resources held by the receiving apparatus that are necessary for program executions, the use state indicating a current status of each resource being used and each resource not being used;

request transmitting means for transmitting to the transmitting apparatus a download request which contains (a) an identification of a download-target program and (b) the generated receiving apparatus information; and

program receiving means for receiving a program that is sent from the transmitting apparatus in response to the download request, and

the transmitting apparatus comprising:

program holding means for holding a plurality of programs and identifications thereof, the plurality of programs achieving basically the same function and requiring resources that satisfy different conditions;

resource information holding means for holding a plurality of pieces of resource information which correspond to the plurality of programs on a one-to-one basis and each indicate resources necessary for an execution of a corresponding program;

request receiving means for receiving the download request from the receiving apparatus;

judging means for judging, from (a) two or more pieces of resource information corresponding to two or more programs that have the identification contained in the download request, among the plurality of programs and (b) the receiving apparatus information contained in the download request, whether the receiving apparatus can execute the two or more programs by checking an amount of unused resource capability currently available; and

program transmitting means for ~~not~~ transmitting to the receiving apparatus a program that the judging means judges the receiving apparatus can ~~not~~ execute and for transmitting to the receiving apparatus a notification that the download is not available when the judging means judges that the receiving apparatus can not execute the program.

1 3. (Original) The download system of Claim 2, wherein
2 when judging that the receiving apparatus can execute any of at least two
3 programs among the two or more programs, the judging means selects one out of the at least two
4 programs, and
5 the program transmitting means transmits the selected program to the receiving
6 apparatus.

1 4. (Original) The download system of Claim 2, wherein
2 when the judging means judges that the receiving apparatus can execute any of at
3 least two programs among the two or more programs, the program transmitting means transmits
4 to the receiving apparatus at least two pieces of characteristic information that each indicate
5 characteristics at an execution of a corresponding one of the at least two programs, receives a
6 selection result which is sent from the receiving apparatus in response to the at least two pieces
7 of characteristic information, and transmits a program corresponding to the selection result to the
8 receiving apparatus, and
9 the receiving apparatus further comprising:
10 selection receiving means for presenting to a user the at least two pieces of
11 characteristic information received from the program transmitting means, allowing the user to
12 select one among the at least two pieces of characteristic information, and receiving a selection
13 result from the user; and
14 selection result notifying means for notifying the transmitting apparatus of the
15 selection result.

1 5. (Cancelled)

1 6. (Currently Amended) ~~The download system of Claim 5;~~ A download system
2 including (a) a receiving apparatus for receiving and executing a program and (b) a transmitting
3 apparatus for transmitting the program to the receiving apparatus,

4 the transmitting apparatus comprising:
5 program holding means for holding one or more programs and identifications
6 thereof;

7 resource data holding means for holding one or more pieces of resource data
8 which correspond to the one or more programs on a one-to-one basis and each define resources
9 necessary for an execution of a corresponding program;

10 request receiving means for receiving either a resource data request or a program
11 request from the receiving apparatus; and

12 transmitting means for either (a) reading from the resource data holding means a
13 piece of resource data corresponding to an identification contained in the received resource data
14 request and transmitting the read piece of resource data to the receiving apparatus, or (b) reading
15 from the program holding means a program corresponding to an identification contained in the
16 received program request, and transmitting the read program to the receiving apparatus, and

17 the receiving apparatus comprising:

18 first request transmitting means for transmitting to the transmitting apparatus the
19 resource data request that contains the identification of a download-target program;

20 resource data receiving means for receiving the piece of resource data sent from
21 the transmitting apparatus in response to the resource data request;

judging means for judging from the piece of resource data whether the receiving apparatus can execute the download-target program by checking an amount of unused resource capability currently available;

second request transmitting means for, when the judging means judges that the receiving apparatus can execute the download-target program, transmitting the program request containing the identification of the download-target program; and

program receiving means for receiving a program that is sent from the transmitting apparatus in response to the program request, wherein

the one or more pieces of resource data held by the resource data holding means are resource acquisition scripts used for acquiring resources necessary for executions of corresponding programs, and

the judging means judges from a result of a provisional execution of a resource acquisition script received from the transmitting apparatus whether the receiving apparatus can execute the download-target program.

7. (Currently Amended) A download system including (a) a receiving apparatus for receiving and executing a program and (b) a transmitting apparatus for transmitting the program to the receiving apparatus,

the transmitting apparatus comprising:

program holding means for holding one or more programs and identifications thereof;

check script holding means for holding one or more check scripts which correspond to the one or more programs and are each used to check whether the receiving

9 apparatus has either of a device function and an embedded-program function that is necessary for
10 an execution of a corresponding program;

11 request receiving means for receiving either a check script request or a program
12 request from the receiving apparatus; and

13 transmitting means for either (a) reading from the check script holding means a
14 check script corresponding to an identification contained in the received check script request and
15 transmitting the read check script to the receiving apparatus, or (b) reading from the program
16 holding means a program corresponding to an identification contained in the received program
17 request, and transmitting the read program to the receiving apparatus, and

18 the receiving apparatus comprising:

19 first request transmitting means for transmitting to the transmitting apparatus the
20 check script request that contains the identification of a download-target program;

21 check script receiving means for receiving the check script sent from the
22 transmitting apparatus in response to the check script request;

23 judging means for judging from a result of an execution of the received check
24 script whether the receiving apparatus can execute the download-target program;

25 second request transmitting means for, when the judging means judges that the
26 receiving apparatus can not execute the download-target program, not transmitting the program
27 request containing the identification of the download-target program; and

28 program receiving means for receiving a program that is sent from the
29 transmitting apparatus in response to the program request.

1 8. - 10. (Cancelled)

11. (Currently Amended) ~~The receiving apparatus of Claim 10,~~ A receiving apparatus for receiving and executing a program in a download system which also includes a transmitting apparatus for transmitting the program to the receiving apparatus, the receiving apparatus comprising:

first request transmitting means for transmitting to the transmitting apparatus the resource data request that contains the identification of a download-target program;

resource data receiving means for receiving the piece of resource data sent from the transmitting apparatus in response to the resource data request;

judging means for judging from the piece of resource data whether the receiving apparatus can execute the download-target program by checking an amount of unused resource capability currently available;

second request transmitting means for, when the judging means judges that the receiving apparatus can execute the download-target program, transmitting the program request containing the identification of the download-target program; and

program receiving means for receiving a program that is sent from the transmitting apparatus in response to the program request, wherein

the piece of resource data received by the resource data receiving means is a resource acquisition script used for acquiring resources necessary for an execution of a corresponding program, and

the judging means judges from a result of a provisional execution of the resource acquisition script received from the transmitting apparatus whether the receiving apparatus can execute the download-target program.

1 12. (Currently Amended) A receiving apparatus for receiving and executing a
2 program in a download system which also includes a transmitting apparatus for transmitting the
3 program to the receiving apparatus, the receiving apparatus comprising:

4 first request transmitting means for transmitting to the transmitting apparatus a
5 check script request that contains an identification of a download-target program;

6 check script receiving means for receiving a check script sent from the
7 transmitting apparatus in response to the check script request;

8 judging means for judging from a result of an execution of the received check
9 script whether the receiving apparatus can execute the download-target program;

10 second request transmitting means for, when the judging means judges that the
11 receiving apparatus can [[not]] execute the download-target program, [[not]] transmitting the
12 program request containing the identification of the download-target program; and

13 program receiving means for receiving a program that is sent from the
14 transmitting apparatus in response to the program request.

1 13. (Currently Amended) A transmitting apparatus that transmits a program to a
2 receiving apparatus that receives and executes the program, the transmitting apparatus and the
3 receiving apparatus being included in a download system, the transmitting apparatus comprising:

4 program holding means for holding one or more programs and identifications
5 thereof;

6 resource information holding means for holding one or more pieces of resource
7 information which correspond to the one or more programs on a one-to-one basis and each
8 indicate resources necessary for an execution of a corresponding program;

request receiving means for receiving a download request from the receiving apparatus;

judging means for judging, from (a) a piece of resource information corresponding to one of the one or more programs with an identification contained in the download request and (b) receiving apparatus information contained in the download request, whether the receiving apparatus can execute the program with the identification by checking an amount of unused resource capability currently available; and

program transmitting means for [[not]] transmitting to the receiving apparatus the program with the identification when the judging means judges that the receiving apparatus can ~~not~~ execute the program and for transmitting to the receiving apparatus a notification that the download is not available when the judging means judges that the receiving apparatus can not execute the program.

14. (Currently Amended) A transmitting apparatus that transmits a program to a receiving apparatus that receives and executes the program, the transmitting apparatus and the receiving apparatus being included in a download system, the transmitting apparatus comprising:

program holding means for holding a plurality of programs and identifications thereof, the plurality of programs achieving basically the same function and requiring resources that satisfy different conditions;

resource information holding means for holding a plurality of pieces of resource information which correspond to the plurality of programs on a one-to-one basis and each indicate resources necessary for an execution of a corresponding program;

10 request receiving means for receiving a download request from the receiving
11 apparatus;

12 judging means for judging, from (a) two or more pieces of resource information
13 corresponding to two or more programs that have an identification contained in the download
14 request, among the plurality of programs and (b) receiving apparatus information contained in
15 the download request, whether the receiving apparatus can execute the two or more programs,
16 and when judging that the receiving apparatus can execute any of at least two programs among
17 the two or more programs by checking an amount of unused resource capability currently
18 available, selecting one out of the at least two programs; and

19 program transmitting means for ~~not transmitting to the receiving apparatus the~~
20 ~~program with the identification when the judging means judges that the receiving apparatus can~~
21 ~~not execute any of at least two programs~~ selected by the judging means to the receiving
22 apparatus and for transmitting to the receiving apparatus a notification that the download is not
23 available when the judging means judges that the receiving apparatus can not execute the
24 program.

1 15. - 17. (Cancelled)

1 18. (New) A receiving apparatus for receiving and executing a program in a
2 download system which also includes a transmitting apparatus for transmitting the program to
3 the receiving apparatus, the receiving apparatus comprising:

4 information generating means for generating receiving apparatus information that
5 indicates a use state of resources held by the receiving apparatus that are necessary for program

6 executions, the use state indicating a current status of each resource being used and each resource
7 not being used;

8 request transmitting means for transmitting to the transmitting apparatus a
9 download request which contains (a) an identification of a download-target program and (b) the
10 generated receiving apparatus information; and

11 program receiving means for receiving a notification that the download is not
12 available when the program turned out not to be executed by the receiving apparatus.

1 19. (New) A receiving apparatus for receiving and executing a program in a
2 download system which also includes a transmitting apparatus for transmitting the program to
3 the receiving apparatus, the transmitting apparatus holding a plurality of programs and
4 identifications thereof, the plurality of programs achieving basically the same function and
5 requiring resources that satisfy different conditions, the receiving apparatus comprising:

6 information generating means for generating receiving apparatus indicates a use
7 state of resources held by the receiving apparatus that are necessary for program executions, the
8 use state indicating a current status of each resource being used and each resource not being
9 used;

10 request transmitting means for transmitting to the transmitting apparatus a
11 download request which contains (a) an identification of a download-target program by checking
12 an amount of unused resource capability currently available and (b) the generated receiving
13 apparatus information;

14 selection receiving means for presenting to a user a plurality of pieces of
15 characteristic information that are received from the transmitting apparatus and each indicate

characteristics at an execution of a corresponding one of a plurality of programs having the identification contained in the download request, allowing the user to select one among the plurality of pieces of characteristic information, and receiving a selection result from the user;

selection result notifying means for notifying the transmitting apparatus of the selection result; and

program receiving means for receiving a program that corresponds to the selection result and is sent from the transmitting apparatus when the program turned out to be able to be executed by the receiving apparatus and for receiving a notification that the download is not available when the program turned out not to be able to be executed by the receiving apparatus.

20. (New) A transmitting apparatus that transmits a program to a receiving apparatus that receives and executes the program, the transmitting apparatus and the receiving apparatus being included in a download system, the transmitting apparatus comprising:

program holding means for holding one or more programs and identifications thereof;

resource data holding means for holding one or more pieces of resource data which correspond to the one or more programs on a one-to-one basis and each define resources necessary for an execution of a corresponding program;

request receiving means for receiving either a resource data request or a program request from the receiving apparatus; and

transmitting means for either (a) reading from the resource data holding means a piece of resource data corresponding to an identification contained in the received resource data

request and transmitting the read piece of resource data to the receiving apparatus, or (b) reading from the program holding means a program corresponding to an identification contained in the received program request, and transmitting the read program to the receiving apparatus, wherein the one or more pieces of resource data held by the resource data holding means are resource acquisition scripts used for acquiring resources necessary for executions of corresponding programs.

21. (New) A transmitting apparatus that transmits a program to a receiving apparatus that receives and executes the program, the transmitting apparatus and the receiving apparatus being included in a download system, the transmitting apparatus comprising:

program holding means for holding one or more programs and identifications thereof;

check script holding means for holding one or more check scripts which correspond to the one or more programs and are each used to check whether the receiving apparatus has either of a device function and an embedded-program function that is necessary for an execution of a corresponding program;

request receiving means for receiving either a check script request or a program request from the receiving apparatus; and

transmitting means for either (a) reading from the check script holding means a check script corresponding to an identification contained in the received check script request and transmitting the read check script to the receiving apparatus, or (b) reading from the program holding means a program corresponding to an identification contained in the received program request, and transmitting the read program to the receiving apparatus.

1 22. (New) A transmitting apparatus that transmits a program to a receiving apparatus
2 that receives and executes the program, the transmitting apparatus and the receiving apparatus
3 being included in a download system, the transmitting apparatus comprising:

4 program holding means for holding one or more programs and identifications
5 thereof;

6 resource information holding means for holding one or more pieces of resource
7 information which correspond to the one or more programs on a one-to-one basis and each
8 indicate resources necessary for an execution of a corresponding program;

9 request receiving means for receiving a download request from the receiving
10 apparatus;

11 judging means for determining (a) whether the receiving apparatus can store the
12 one or more programs by checking an amount of available storage space and (b) whether the
13 receiving apparatus can execute the one or more programs by checking an amount of unused
14 resource capability currently available; and

15 program transmitting means for transmitting to the receiving apparatus the
16 program with the identification when the judging means judges that the receiving apparatus can
17 execute the program and for transmitting to the receiving apparatus a notification that the
18 download is not available when the judging means judges that the receiving apparatus can not
19 execute the program.